42-44). A multiconductor ribbon (56), such as a stripline cable that includes a ground plane, is connectable using a wire bonding technique to the array of detectors (49) and to the ground plane. (Col. 4, lines 51-55).

Notably, to the extent understood, Weedon et al. do not describe or suggest a detector module assembly wherein a scintillator array is optically coupled to a photosensor array and separated therefrom by a gap filled with either air or a compliant, clear film.

Iwanczyk et al. generally describe an imaging detector for use with a gamma-camera. Detector D includes a scintillator array and a photodetector array separated by an optically transparent thermal layer, which typically consists of an epoxy. (Col. 8, line 64) Iwanczyk et al. further note that "an air coupling may be used in some applications." (Col. 8, lines 64-65).

Notably, to the extent understood, Iwanczyk et al. do not describe or suggest a finished detector module assembly for CT scanning. Iwanczyk et al. further do not describe or suggest a detector module assembly wherein the assembly includes a flexible electrical cable electrically coupled to the photosensor array.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Weedon et al. using the teachings of Iwanczyk et al. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicant's disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Neither Weedon et al. nor Iwanczyk et al., considered alone or in combination, describe or suggest the claimed combination. Rather, the present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Weedon et al. are cited for teaching a detector module that includes a scintillator array and a photosensor array not separated by any gap, and Iwanczyk et al. teaches a gamma-camera imaging detector wherein a scintillator array and a photodetector array may be separated by a thermal layer. Accordingly, Applicant respectfully traverses Examiner's statement that it would be obvious to modify the apparatus of Weedon et al. by separating a photosensor array and a scintillator array with an air gap as disclosed by Iwanczyk et al.

Since there is no teaching or suggestion for the combination of Weedon et al. and Iwanczyk et al., the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection of Claims 1-3, 6-10, 15-23, 26, and 29 be withdrawn.

Notwithstanding the above, the rejection of Claims 1-3, 6-10, 15-23, 26, and 29 under 35 U.S.C. § 103 as being unpatentable over Weedon et al. in view of Iwanczyk et al. is further traversed on the grounds that Weedon et al. and Iwanczyk et al., considered alone or in combination, do not describe or suggest the claimed invention.

Claim 1 recites a finished detector module assembly suitable for use in a computed tomography (CT) imaging system wherein the assembly includes "a substrate; a photosensor array mounted on the substrate; an array of scintillators optically coupled to said photosensor array and separated therefrom by a gap, said gap filled with a member of the group consisting of air and a compliant clear film; and a flexible electrical cable electrically coupled to the photosensor array."

Neither Weedon et al. nor Iwanczyk et al., considered alone or in combination, describe or suggest a finished detector module assembly wherein the assembly includes a substrate, a photosensor array mounted on the substrate, an array of scintillators optically coupled to the photosensor array and separated therefrom by a gap filled with either air or a compliant clear film, and a flexible electrical cable electrically coupled to the photosensor array. More specifically, and in contrast to the present invention, Weedon et al. describe a detector module assembly wherein a scintillator array and a photosensor array are not separated by a gap, and Iwanczyk et al. describe a gamma-camera imaging detector wherein a scintillator array and a photosensor array are separated by a thermal layer, but wherein the photosensor array is not electrically coupled to a flexible electrical cable. Applicant respectfully traverses the suggestion in the Office Action that it would be obvious to modify the apparatus of Weedon et al. such that the photosensor array and scintillator array are separated by an air gap as disclosed by Iwanczyk et al. Rather, the description by Weedon et al. of an array of scintillator crystals mounted on an array of semiconductor detectors is inapposite to the air gap of Iwanczyk et al.

For at least the reasons set forth above, Applicant respectfully submits that Claim 1 is patentable over Weedon et al. in view of Iwanczyk et al.

Claims 2-3, 6-10, and 15-20 depend, directly or indirectly, from independent Claim 1 which is submitted to be in condition for allowance. When the recitations of Claims 2-3, 6-10, and 15-20 are considered in combination with the recitations of Claim 1, Applicant respectfully submits that dependent Claims 2-3, 6-10, and 15-20 are also patentable over Weedon et al. in view of Iwanczyk et al.

Claim 21 recites a method for making a finished detector module, suitable for use in computed tomography (CT) imaging systems, and including a photosensor array optically coupled to an array of scintillators, wherein the method includes "adhesively bonding a photosensor array to a substrate; electrically bonding a flexible cable to the photosensor array; preforming a compliant, clear film into a size and shape configured for placement between and optical coupling of the photosensor array to an array of scintillators; placing the preformed film on top of the photosensor array; and placing a scintillator array on top of the preformed film."

Neither Weedon et al. nor Iwanczyk et al., considered alone or in combination, describe or suggest a method for making a finished detector module suitable for use in computed tomography (CT) imaging systems, wherein the method includes preforming a compliant, clear film into a size and shape configured for placement between, optical coupling of the photosensor array to an array of scintillators, and placing a scintillator array on top of the preformed film. Rather, Weedon et al. describes a detector module wherein a photosensor array and a scintillator array are not separated by a film, but are coupled directly, and Iwanczyk et al. describes a detector module wherein a photosensor array and a scintillator array are separated by a thermal layer, but not a preformed film. For at least the reasons set forth above, Applicant submits that Claim 21 is patentable over Weedon et al. in view of Iwanczyk et al.

Claims 22 and 23 depend, directly or indirectly, from independent Claim 21 which is submitted to be in condition for allowance. When the recitations of Claims 22 and 23 are considered in combination with the recitations of Claim 21, Applicant respectfully submits that dependent Claims 22 and 23 are also patentable over Weedon et al. in view of Iwanczyk et al.

Claim 26 recites a method for making a finished detector module, suitable for use in computed tomography (CT) imaging systems, and including a photosensor array optically coupled to an array of scintillators, wherein the method includes "adhesively bonding a photosensor array to a substrate; electrically bonding a flexible cable to the photosensor array; adhesively bonding a clamping mechanism to a scintillator array to form a scintillator/clamping mechanism assembly; and adhesively bonding the clamping mechanism of the

scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap."

Neither Weedon et al. nor Iwanczyk et al., considered alone or in combination, describe or suggest a method for making a finished detector module suitable for use in computed tomography (CT) imaging systems wherein the method includes adhesively bonding a photosensor array to a substrate, electrically bonding a flexible cable to the photosensor array, adhesively bonding a clamping mechanism to a scintillator array to form a scintillator/clamping mechanism assembly, and adhesively bonding the clamping mechanism of the scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap.

Weedon et al. describe a scintillator array mounted directly to a photosensor array disposed on a substrate. To the extent understood, however, Weedon et al. do not describe or suggest a method including adhesively bonding a clamping mechanism to a scintillator array to form a scintillator/clamping mechanism assembly, and adhesively bonding the clamping mechanism of the scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap.

Iwanczyk et al. describe an imaging detector wherein a photosensor array and a scintillator array are separated by a thermal layer, which may include an air gap. However, to the extent understood, Iwanczyk et al. do not describe or suggest a method including electrically bonding a flexible cable to the photosensor array, adhesively bonding a clamping mechanism to a scintillator array to form a scintillator/clamping mechanism assembly, and adhesively bonding the clamping mechanism of the scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap. For at least the reasons set forth above, Applicant respectfully submits that Claim 26 is patentable over Weedon et al. in view of Iwanczyk et al.

Claim 29 depends, directly or indirectly, from independent Claim 26 which is submitted to be in condition for allowance. When the recitations of Claim 29 are considered in

combination with the recitations of Claim 26, Applicant respectfully submits that dependent Claim 29 is also patentable over Weedon et al. in view of Iwanczyk et al.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 1-3, 6-10, 15-23, 26, and 29 be withdrawn.

The rejection of Claims 11-14 and 30 under 35 U.S.C. § 103 as being unpatentable over Weedon et al. (U.S. Patent 5,499,281) in view of Iwanczyk et al. (U.S. Patent 5,773,829) and further in view of Yamashita et al. (U.S. Patent 4,823,016) is respectfully traversed.

Weedon et al. and Iwanczyk et al. are described above. Yamashita et al. describe a scintillation detector for three-dimensionally measuring the position of gamma-ray absorption in the detector. More specifically, Yamashita et al. describe scintillator elements wherein the end surfaces of each of the scintillator elements are mirror polished. (Col. 4, lines 19-20).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Weedon et al. using the teachings of Iwanczyk et al. and Yamashita et al. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. *Ex parte*

Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicant's disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

None of Weedon et al., Iwanczyk et al., or Yamashita et al., considered alone or in combination, describe or suggest the claimed combination. Rather, the present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention.

Specifically, Weedon et al. are cited for teaching a detector module assembly including a scintillator array and a photosensor array not separated by any gap, Iwanczyk et al. are cited for teaching a detector module including a scintillator array and a photosensor array separated by a thermal layer, and Yamashita et al. are cited for teaching a scintillation detector wherein the end surfaces of each of the scintillator elements are mirror polished.

Since there is no teaching or suggestion for the combination of Weedon et al., Iwanczyk et al., and Yamashita et al., the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason, Applicant requests that the Section 103 rejection of Claims 11-14 and 30 be withdrawn.

Notwithstanding the above, the rejection of Claims 11-14 and 30 under 35 U.S.C. § 103 as being unpatentable over Weedon et al. in view of Iwanczyk et al. and further in view of Yamashita et al. is further traversed on the grounds that none of Weedon et al., Iwanczyk et al., or Yamashita et al., considered alone or in combination, describe or suggest the claimed invention.

Claims 11-14 depend, either directly or indirectly, from independent Claim 1 which recites a finished detector module assembly suitable for use in a computed tomography (CT) imaging system wherein the assembly includes "a substrate; a photosensor array mounted on the substrate; an array of scintillators optically coupled to said photosensor array and separated therefrom by a gap, said gap filled with a member of the group consisting of air and a compliant clear film; and a flexible electrical cable electrically coupled to the photosensor array."

None of Weedon et al., Iwanczyk et al., or Yamashita et al., considered alone or in combination, describe or suggest a finished detector module assembly suitable for use in a CT imaging system wherein the assembly includes a substrate, a photosensor array mounted on the substrate, an array of scintillators optically coupled to the photosensor array and separated therefrom by a gap, where the gap is filled with either air or a compliant clear film, and a flexible electrical cable electrically coupled to the photosensor array. Moreover, and in contrast to the present invention, Weedon et al. describe a detector module assembly wherein a scintillator array and a photosensor array are not separated by a gap, Iwanczyk et al. describe a gamma-camera imaging detector wherein a scintillator array and a photosensor array are separated by a thermal layer, and Yamashita et al. describe a scintillation detector wherein the end surfaces of each of the scintillator elements are mirror polished.

Claims 11-14 depend, directly or indirectly, from independent Claim 1 which is submitted to be in condition for allowance. When the recitations of Claims 11-14 are considered in combination with the recitations of Claim 1, Applicant respectfully submits the dependent Claims 11-14 are also patentable over Weedon et al. in view of Iwanczyk et al. and further in view of Yamashita et al.

Claim 30 depends, directly or indirectly, from independent Claim 26, which recites a method for making a finished detector module, suitable for use in computed tomography (CT) imaging systems, and including a photosensor array optically coupled to an array of scintillators, wherein the method includes "adhesively bonding a photosensor array to a substrate; electrically bonding a flexible cable to the photosensor array; adhesively bonding a clamping mechanism to

a scintillator array to form a scintillator/clamping mechanism assembly; and adhesively bonding the clamping mechanism of the scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap."

None of Weedon et al., Iwanczyk et al., or Yamashita et al., considered alone or in combination, describe or suggest a method for making a finished detector module, suitable for use in CT imaging systems, and including a photosensor array optically coupled to an array of scintillators, wherein the method includes adhesively bonding a photosensor array to a substrate, electrically bonding a flexible cable to the photosensor array; adhesively bonding a clamping mechanism to a scintillator array to form a scintillator/clamping mechanism assembly, and adhesively bonding the clamping mechanism of the scintillator/clamping mechanism assembly to the substrate so that a surface of the scintillator opposes a surface of the photosensor array across an air gap. Weedon et al. describe a scintillator array mounted directly to a photosensor array disposed on a substrate, Iwanczyk et al. describe an imaging detector wherein a photosensor array and a scintillator array are separated by a thermal layer, which may include an air gap, and Yamashita et al. describe a scintillation detector wherein a photodetector is connected to each end of a scintillator, which includes a plurality of scintillator elements. Accordingly, Applicant submits that Claim 26 is patentable over Weedon et al. in view of Iwanczyk et al. and further in view of Yamashita et al.

Claim 30 depends indirectly from independent Claim 26 which is submitted to be in condition for allowance. When the recitations of Claim 30 are considered in combination with the recitations of Claim 26, Applicant respectfully submits that dependent Claim 30 is also patentable over Weedon et al. in view of Iwanczyk et al. and further in view of Yamashita et al.

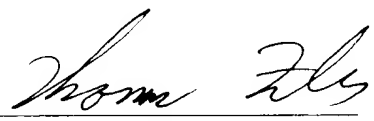
For the reasons set forth above, Applicant respectfully submits that the Section 103 rejection of Claims 11-14 and 30 be withdrawn.

Claims 4, 5, 24, 25, 27, and 28 were objected to as being dependent upon a rejected base claim, but were indicated as being allowable if rewritten in independent form. Claims 4 and 5 depend, directly or indirectly, from independent Claim 1 which is submitted to be in condition

for allowance. When the recitations of Claims 4 and 5 are considered in combination with the recitations of Claim 1, Applicant submits that dependent claims 4 and 5 likewise are in condition for allowance. Claims 24 and 25 depend, directly or indirectly, from independent Claim 21 which is submitted to be in condition for allowance. When the recitations of Claims 24 and 25 are considered in combination with the recitations of Claim 21, Applicant submits that dependent claims 24 and 25 likewise are in condition for allowance. Claims 27 and 28 depend, directly or indirectly, from independent Claim 26 which is submitted to be in condition for allowance. When the recitations of Claims 27 and 28 are considered in combination with the recitations of Claim 26, Applicant submits that dependent claims 27 and 28 likewise are in condition for allowance.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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